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LOW TEMPERATURE FOOD STORAGE BOX STRUCTURE WITH
MEANS FOR COOLING MACHINERY COMPARTMENT
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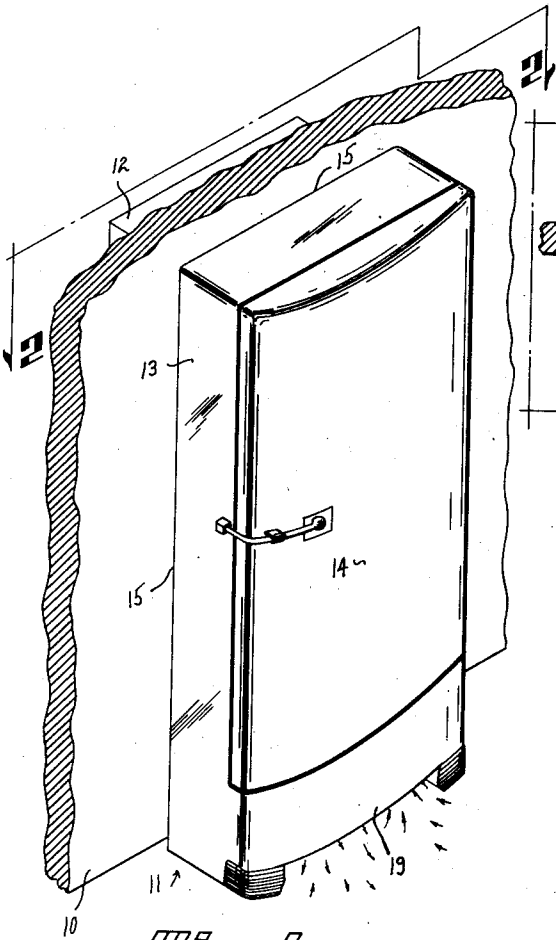


Fig. 1.

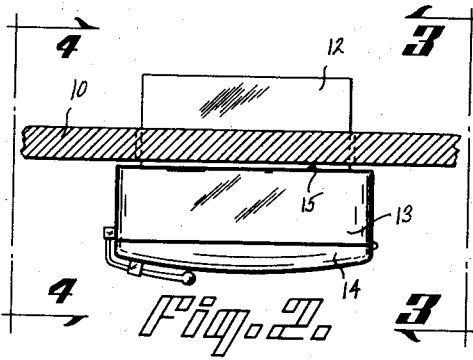


Fig. 2.

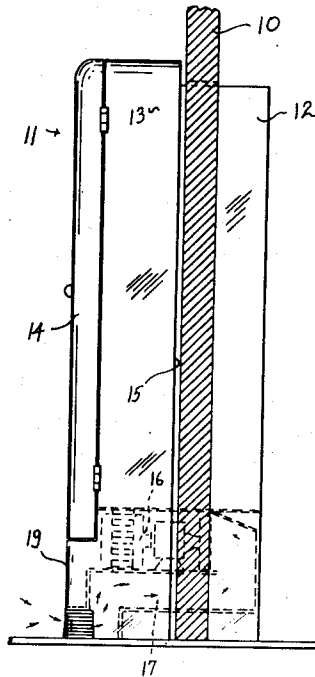


Fig. 3.

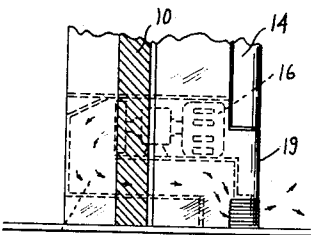


Fig. 4.

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LOW TEMPERATURE FOOD STORAGE BOX
STRUCTURE WITH MEANS FOR COOLING
MACHINERY COMPARTMENT

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2 Claims. (Cl. 62-117.4)

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My invention relates to kitchen equipment and more particularly to the art of providing a low temperature food storage box, such as refrigerators or the like, that is especially designed to be arranged so as to eliminate a substantial portion thereof from visibility.

The mechanical refrigerator is probably one of the most useful pieces of kitchen equipment to the housewife of today and it differs from the old fashioned ice box not only in utility and efficiency but also in the fact that where the old ice box was generally found in a pantry or alcove off or away from the kitchen, the automatic refrigerator finds its place in the kitchen proper. This is true because the mechanical unit not requiring daily servicing with ice is usually placed in a prominent place because of the housewife's desire for convenient access thereto and not particularly because of her wishes to place such a bulky unit in a room that seldom has adequate space. While the obvious drawback of a piece of kitchen equipment having the bulk of the refrigerator is generally overcome by the convenience and service which it gives, nevertheless a constant search is being made to provide a means for the refrigerator to more harmoniously fit in with the designs, color schemes and overall well proportioned and balanced appearance that will add to the attractiveness of the kitchen room. The results of such searches is reflected in the many ways refrigerators have been streamlined from the standpoint of outward appearance and in the various arrangements to more efficiently use the inner space so that greater storage capacity can be provided without increasing the bulk of the unit. In some mechanical refrigerators, the lower area once used for dry storage has now been added to the low temperature area and in other boxes the inside of the door has been provided with storage shelves and still in others, separate shelf lined doors have been adapted intermediate the outer door and inner storage compartment. These examples are merely some illustrations of the current trend to enlarge the inner storage capacity without enlarging the outer bulk.

The average household refrigerator is generally larger and more bulky than any other individual piece of kitchen equipment and this bulk becomes more obvious and apparent in the great mass of post war homes where the dimensions of all rooms including the kitchen seem to be decreasing. In many homes today, the dining room has been eliminated and is combined either with the kitchen or living room

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so that the most efficient use of what kitchen space is available is further complicated by the almost always present bulky refrigerator.

With this problem in mind it is an object of my invention to provide a low temperature food storage box that has a reduced rear portion designed to fit in a wall recess so that only a small portion at the front thereof extends into and is visible from the room in which the box is used.

A further object of this invention is to provide a refrigerator of the above class wherein that portion that extends into the room completely conceals the edges of the opening in the wall and thereby does not require any separate flanges or the like for that purpose.

A still further object of this invention is to provide with a refrigerator of the aforementioned classes, an air intake and an air outlet passageway for air circulation about the coils that each communicates with the outside atmosphere at the bottom of the front of the box and thereby makes it possible to enclose the box on all sides except the front.

Still another object of this invention is to provide a refrigerator having the above recited characteristics in which the point at which the air passageways communicate with the outside atmosphere is concealed from view when the refrigeration is positioned for normal operation.

These and other objects will be apparent to those skilled in the art.

My invention consists in the construction, arrangement, and combination of the various parts of the device, whereby the objects contemplated are attained as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a perspective view of a refrigerator embodying my box construction and shown arranged in the recess of a wall,

Fig. 2 is a top view of this low temperature food storage box taken from the line 2-2 of Fig. 1 and showing the wall in cross-section,

Fig. 3 is a side view of this device taken from the line 3-3 of Fig. 2 and showing the wall in cross-section, with the broken lines indicating the arrangement of the motor and the air inlet passageway, and

Fig. 4 is a side view of the bottom portion of this device taken from the line 4-4 of Fig. 2 and showing the wall in cross-section and with the broken lines indicating the arrangement of the motor and the air outlet passageway.

Referring now to the drawings I have used the

numeral 10 to designate a vertical wall in a room such as a kitchen or the like. An opening or recess (not shown) is provided in the wall intermediate the adjoining ceiling and floor. The size of the opening will be governed by size of the low temperature food storage box 11 to be set therein. This box 11 such as a refrigerator or the like is constructed so that its rear portion 12 is reduced in size as compared to the front portion 13 that carries the door 14. By this construction at the line of demarcation between the rear and front portions 12 and 13 respectively, a flange shoulder 15 is formed that extends across the top and on the two sides of the front 13. The reduced portion 12 is set into the wall opening or recess so that the shoulder 15 is either closely adjacent or engages the wall 10 so as to cover and conceal the edges of the wall opening from view as shown in Fig. 1. For this reason it becomes immaterial whether the edges of the wall openings are smoothly finished. So arranged, only a small portion of the front of the cabinet 11 extends into the room and the large bulk thereof is not visible. In addition, the amount of extension into the room can correspond to the width of other kitchen equipment such as work tables, stove and the like to provide a better balanced and proportioned arrangement of kitchen furniture and also to permit more efficient use of kitchen space.

With mechanical refrigerators, there must of course be air circulation about the coils to get effective results from the low temperature producing machinery which I show at 16 and which can be of any suitable type. To provide this air circulation I have provided an air inlet passageway 17 and air outlet passageway 18 that each communicate with the outside atmosphere at the bottom of the front of the box, as shown in Fig. 3. The operation of the fan on the machinery 16 will obviously create a low pressure area into which air will flow through the inlet 17 and be expelled through the outlet 18. The purpose of providing an air circulating means as described is to make it possible to snugly fit the rear 12 of the box 11 into a wall recess without the need for providing ventilating means within the recess or wall. By this arrangement the rear of the box which may extend into an adjoining room can be completely enclosed or walled off so that it will have no communication whatever with any other space in the building or house other than the kitchen and therefore furniture or the like can be suitably arranged in the adjoining room to disguise or break the lines of this extension without danger of interfering with any ventilating openings therein.

It is pointed out that the point at which the air passageways 17 and 18 communicate with the outside atmosphere is behind the lower front

panel portion 19 of the box 11 and thereby is concealed from view. Air being drawn in or expelled through these passageways passes under the bottom edge of the panel portion 19 as shown in Figs. 1, 3 and 4. This bottom edge is spaced from the supporting surface to provide for this.

Some changes may be made in the construction and arrangement of my low temperature food storage box structure without departing from the real spirit and purpose of my invention, and it is my intention to cover by my claims, any modified forms of structure or use of mechanical equivalents which may be reasonably included within their scope.

I claim:

1. A refrigerator cabinet having the air inlet and outlet for the refrigerator compressor positioned at the lower front of the cabinet to facilitate sealing the back and sides of the cabinet to adapt the refrigerator to being recessed in a wall; said cabinet having a passageway formed in its bottom front and extending rearwardly therefrom to a vertical wall; the air inlet and outlet of the refrigerator compressor communicating with the top of said passageway; whereby air for the refrigerator compressor enters and exhausts solely at the front of said refrigerator cabinet; said passageway serving and appearing to serve solely as a toe receiving hole.

2. In a refrigerator cabinet, a base adapted to support a cabinet in a vertical position on a horizontal surface, said cabinet being smaller in both width and height for a substantial portion of its depth measured from its rear, as compared to the forward portion of said cabinet, a toe receiving well in the front bottom center of said cabinet, a refrigerating unit in the power portion of said cabinet and above the top portion of said toe receiving well, an air inlet communicating with said well and said refrigerating unit, and an air outlet separated from said air inlet and communicating with a different portion of said refrigerating unit and a different portion of said toe well.

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